

PROPOSALS

FOR PROMOTING

GENERAL INOCULATION

IN

NEWCASTLE.

—— quibus hunc lenire dolorem
Follis, et magnam morbi deponere partem.

HOR.

NEWCASTLE:

PRINTED BY S. HODGSON.

MDCCLXXXVI.

P R O P O S A L S
FOR PROMOTING
GENERAL INOCULATION
IN
NEWCASTLE.

P R E F A C E.

OF all the diseases to which the human species are subject, none has committed such dreadful havock as the Small-pox. In large towns especially, where the infection continually prevails, incredible numbers not only fall victims to the disease; but blindness, lameness, consumptions, and other baneful consequences, too frequently render those who survive a burden to their relations, and useless members of society.

To disarm this pestilence of its malignity and danger, Inoculation has been most providentially discovered. But although the advantages resulting from it are the greatest that human art

can bestow, yet it has unfortunately happened that the practice has not become general in this kingdom.

In Newcastle, it must be confessed, those of higher rank inoculate their children, at any suitable time of the year ; but, amongst the other inhabitants, especially amongst the poor, Inoculation has made little or no progress. Such partial Inoculations as have hitherto been performed, however advantageous to individuals, it is to be feared, have contributed very little to the health of the community. Experience has proved that general Inoculations, in early infancy, are the best means to prevent the dreadful mortality of the Small-pox. On this account, this practice was an object of the Newcastle Dispensary, from its first institution. In the year 1779, a plan for general Inoculation of the poor, at stated periods, from which the following does not materially differ, was offered to the governors ; but, from the deficiency of the funds, was never carried into execution. With a view, however, of exciting the humane to give effectual support, an estimate of the mortality annually occasioned by the Small-pox, and the number of lives which might have been saved by Inoculation, has been continued in the annual reports of the charity.

Although, from want of public aid, Newcastle has been deprived of the honour of being the first example of a very large and populous town affording general Inoculation to the poor, yet
similar

similar attempts, in other places, have proved it to be extremely practicable. In the city of Chester, there was a general Inoculation, in 1780 and 1781. In Leeds, there were general Inoculations performed, in the spring of 1781, 1782, and 1783. In Liverpool, a general Inoculation of the poor was begun in autumn 1781, and of 416 patients who were inoculated, only one died.

By these successful trials it appears, that the poor may be conducted through the Small-pox by Inoculation, at their own habitations, with as great safety as in an hospital, or in private practice.

The poor inhabitants of this town, in general, have hitherto been averse to Inoculation. Long habits, ill-founded prejudices, and ignorance of the advantages resulting from Inoculation, have no doubt prevented numbers from accepting it. But another cause subsists which still very powerfully retards Inoculation. The labour of the poorest class of women is so necessary to the subsistence of their families, that they cannot afford time to nurse their children during the period of the inoculated Small-pox. Therefore, were gratuities offered to parents for maintaining their children, were medical assistance offered gratis at a public institution, *and were the enlightened inhabitants, in general, at the pains to explain to their ignorant neighbours the benevolent intentions of such an institution*, it is presumed every cause, which has hitherto obstructed Inoculation,

lation, would be speedily removed, and its blessings diffused through every rank of society.

P L A N

P L A N
FOR THE
GENERAL INOCULATION
OF THE
P O O R
IN
NEWCASTLE and GATESHEAD.

1. **I**NOCULATION will be performed every spring and autumn ; and before the time is fixed upon, a short address to the inhabitants, setting forth the benefits of Inoculation, will be generally distributed.

2. When a sufficient number has offered for Inoculation, Newcastle and Gateshead will be divided into districts, to be attended by respective surgeons, whose humanity may prompt them to give their aid to this department of the Dispensary.

3. The patients will be inoculated at their own habitations ; will be supplied with medicines gratis from the Dispensary ; and visited as often as their cases may require.

4. To persons in such indigent circumstances as cannot afford time to nurse their children, the following sums will be given to support them during Inoculation :

For

For one child, five shillings ; for two in one family, seven shillings ; for three in one family, nine shillings ; for four and upwards in one family, ten shillings.

5. As there will be some prejudiced persons, who will not offer their children for Inoculation, and others who cannot be inoculated on account of a bad state of health, great care and attention will be paid to proper rules, for preventing such children receiving the Small-pox from inoculated patients*.

6. Annual subscribers of One Guinea will be entitled to recommend four patients with gratuities, and an unlimited number without gratuities.

7. Such charitable persons as may chuse to give private assistance to their indigent neighbours, and are at the pains to remove their pre-

* The risk of propagating the contagion of the Small-pox being in proportion to the number of the pustules, it is evident that Inoculation will be the most likely means of cutting off the sources of infection. One inoculated patient, upon an average, has not above one hundred pustules ; whereas the body of a patient, under the natural disease, is covered with millions. When, therefore, rules of prevention are observed, no danger of spreading contagion from inoculated patients can be apprehended.—After the appearance of the pustules, (before which time there is no risk of disseminating infection) inoculated patients will be confined to their own houses ; and the following simple caution will be enforced, which in Chester was found adequate to prevent patients, under the natural disease, spreading contagion : “ Suffer none of your family to enter an infectious house, nor any person or thing from an infectious house to approach near to those of your family, who are liable to the distemper.”

prejudices to Inoculation, may, even although they do not become subscribers, recommend any number of patients, who will be inoculated without gratuities.

8. The officers of the Dispensary, together with an equal number of the subscribers to general Inoculation; will constitute a committee, for distributing the rewards to the poor, and for the management of other matters relative to this department of the Dispensary.

9. During the period of general Inoculation, the Faculty will meet twice a week at the Dispensary, to consult upon particular cases which may occur.

N. B. Before a general Inoculation be offered to the poor, it is judged proper that the consent and patronage of the Magistrates, the Clergy, and principal inhabitants, be obtained : And all who are desirous of contributing their aid towards effecting a general Inoculation, are earnestly desired to favour the committee with their names ; as they will be afterwards requested to recommend patients, and to explain to their neighbours the benevolent intentions of this department of the Dispensary.

OBSERVATIONS.

IN order to demonstrate the great advantages which would result to the community from general Inoculations, it may not be improper, 1st, To give a short estimate of the destructive ravages of the natural Small-pox, and 2d, Of the number of lives which may be annually saved by Inoculation.

I. By calculations from the bills of mortality in London, it appears, that during the period of ten years, viz. from 1770 to 1780, the yearly medium of births was 17,218; and that the annual number of deaths, by the Small-pox, for ten years, is about 2,506. From this it is evident, that more than a seventh part of all that are born, annually die of the Small-pox in London.

To judge in what degree the Small-pox is fatal to the inhabitants of this town, where no perfect register is kept, we must have recourse to accurate bills of mortality, instituted in other places.

In the town of Manchester, during six years, viz. from 1768 to 1774, although the Small-pox was only twice epidemic, the annual medium of deaths by it amounted to 98. It also appears from the register, that the deaths by it were in the proportion of one out of six and an half occasioned by all other diseases. In the
city

city of Chester, during six years, 378 persons died of the Small-pox; and the whole number of burials, during the same period, amounted to 2,522: The proportional mortality of the Small-pox to that occasioned by all other diseases, is, therefore, more than one out of seven. In Liverpool, the annual medium of burials for three years previous to 1775 was 1,211; of christenings 1,186; and of deaths by the Small-pox 220: It therefore appears, that one out of five and an half of all that were buried, and more than one in five and an half of all that were christened, died of the Small-pox.

Let us now apply these calculations to the Newcastle bills, which do not specify the diseases of which persons die. The annual medium of burials, by the church register of Newcastle and Gateshead, for six years previous to 1779, was 673; the number supposed to be buried annually at the Ballast-hills is above 300; these added, will make the annual burials amount to 973; and if we suppose that a sixth part die by the Small-pox, the yearly average of mortality, by this disease, will amount to 162.

We shall now proceed to form an estimate of the number of persons who die annually of the Small-pox throughout Great-Britain.

The number of inhabitants in London, according to Dr Price, amounts to 601,750.—The inhabitants of Manchester have been enumerated

merated to 27,246 ; of Liverpool, to 34,407 ; of Chester, to 14,713 : The inhabitants of Newcastle and Gateshead cannot be estimated lower than 30,000. Hence the number of inhabitants in all these towns amount to 708,116 ; and the annual medium of deaths by the Small-pox (as we have endeavoured to demonstrate) amounts to 3,049 *.——Great-Britain, at the lowest estimation, contains seven millions of inhabitants ; and if the Small-pox be equally fatal throughout the kingdom as in these towns, the annual average of mortality, by this disease alone, will amount to 30,140. This number, it is apprehended, is under-rated ; for it is probable that the inhabitants of Great-Britain amount to 9,000,000. A much less number, however, would be very alarming, when it is considered, that the victims to this disease are the young, from whom the community would receive the greatest benefit.

II. We shall now proceed to calculate the number of persons who would be annually saved to the public, by general Inoculation, throughout Great-Britain.

By the improved method of Inoculation,
where.

* Annual deaths by the Small-pox in the above towns.

London (according to page 10)	—	2,506
Manchester (p. 10)	—	98
Chester (p. 11)	—	63
Liverpool (p. 11)	—	220
Newcastle (p. 11)	—	162

Total of annual deaths by the Small-pox 3,049

where the patients have been kept out of all risk of the natural disease, not above one in five hundred dies. During the general Inoculations at Leeds and Liverpool, in the year 1781, six hundred and fifty-eight were inoculated; and although the natural Small-pox was prevalent in both places, only two of the number which were inoculated died. In Chester, four hundred and sixteen were inoculated, of whom two died. But if even we allow, in general Inoculations, that one shall die out of each hundred, the saving to the community will be immense.

By different calculations, it is ascertained, that the number of persons who die of the Small-pox, bears a greater proportion to those who recover, than one to six. But if we admit this number, it will follow, that 972 persons annually sicken of this disease in Newcastle; this being six times the number of those that die of the Small-pox, according to our calculation, p. 11.

If all those were inoculated, (even if we allow one in a hundred to die) instead of 162 dying out of 972, only nine would die; and consequently 153 lives might be annually saved in this town.

If we extend this calculation to Great-Britain, where 180,000 must sicken of the Small-pox,
this

this sum being six times the number of those who die annually of that disease; instead of 30,000* dying annually, [see p. 12.] out of 180,000 only 1,800 would die; and consequently 28,200 lives would be annually saved, who at present perish of the disease. We must however observe, that if the fatality of the Small-pox were totally prevented by Inoculation, a considerable number of those who have passed through the distemper, would die afterwards of other diseases in childhood. As an adequate allowance, we shall deduct a seventh part†; and instead of 28,200, we shall only reckon that 24,172 lives would be saved in this island by general Inoculation.

The whole of our calculations have been purposely fixed low; but they are sufficient to evince the great importance of Universal Inoculation.

* In both these proportions we have taken an even sum, throwing out 140 from 30,140, page 12.

† By the bills of mortality in Chester, about one-seventh of those who pass through the disease by inoculation, die afterwards in childhood.

To effect a General Inoculation of the poor, in so large and populous a town as NEWCASTLE, the concurrence and assistance of the principal inhabitants are earnestly requested ; and every alteration and improvement to the plan will be thankfully acknowledged.

SUBSCRIPTIONS *are received by Mr ORM-
STON, Treasurer to the Dispensary.*

